COASTAL SERVICES

Volume 6, Issue 6 • November/December 2003

Linking people, information, and technology

The Coastal Management SAMP of Approval

Stepping through Oregon's Coastal Information Gateway

Building Green in Ohio

From the Director

Only 12 coastal states and territories take advantage of a powerful instrument in the Coastal Zone Management Act—Special Area Management Plans, or SAMPs.

It is not a simple task to use this strategic planning tool. Differences in state programs, policies, and politics can dictate the feasibility and potential success of going through what is often a lengthy and difficult process.

In the cover story of this edition of *Coastal Services*, Rhode Island and South Carolina—two states that have successfully developed and implemented a number of SAMPs over the past two decades—share some basic strategies that can be followed, as well as recount the rewards.

While every program that has developed a SAMP has approached the process differently, these two states show that there are some lessons that can be learned and shared.

Also in this edition we feature an article on Oregon's Coastal Atlas, a Web site that is one of the country's most comprehensive information sources about a state's shoreline.

Used by beach lovers, researchers, and coastal resource managers alike, the site features a wide variety of searchable data and metadata collected by local, state, and federal agencies, and researchers.

This portal to Oregon's coastal information gives users tools to do everything from creating maps to checking current weather conditions. The NOAA Coastal Services Center is proud to have supported this project.

You also can read articles about an Ohio National Estuarine Research Reserve's use of new, environmentally friendly construction practices, as well as a Georgia National Marine Sanctuary's efforts to develop the next generation of coastal and marine managers and researchers.

While every coastal management program has unique challenges, the articles in *Coastal Services* highlight states that have experience with issues from which other coastal managers can learn, as well as successful programs and projects. We hope this and every edition of *Coastal Services* help keep you informed about what other coastal managers are doing across the nation.

Margaret A. Davidson

The mission of the NOAA Coastal Services Center is to support the environmental, social, and economic well being of the coast by linking people, information, and technology.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Coastal Services Center

Back issues of *Coastal Services* can be viewed at *www.csc.noaa.gov/magazine/*

To subscribe to *Coastal Services*, please direct correspondence to:

Hanna Goss
NOAA Coastal Services Center
2234 South Hobson Avenue
Charleston, SC 29405-2413
Phone: (843) 740-1332
Fax: (843) 740-1313
E-mail: *Hanna.Goss@noaa.gov*

For more information about the Coastal Services Center, call (843) 740-1200 or visit our home page on the Internet: *www.csc.noaa.gov*

NOAA/CSC/20306-PUB

News and Notes:

New Courses Address Needs of State Coastal Resource Management Community

The curriculum offered by the National Oceanic and Atmospheric Administration's (NOAA) Coastal Services Center is as varied as the coastal resource management community. Three new courses were recently added to the curriculum. To get additional information or see a full course listing, please visit *www.csc.noaa.gov/training/*.

Understanding Marine Protected Areas

From coral reefs to kelp forests, the territorial waters of the U.S. contain a number of amazing resources and diverse habitats. A recent executive order encourages the private sector and federal, state, local, and tribal governments to work together to protect these important marine areas.

While the marine protected areas (MPAs) concept has been used around the world for generations, the MPA Executive Order reignited interest in MPAs in this country. This interest often comes with numerous questions as stakeholders look to make sense of the sometimes confusing policies and programs related to this effort.

A new Center training program, "Understanding Marine Protected Areas," was designed for MPA stakeholders. This course is a little different from most Center programs because the target audience is the general public, not resource managers. This politically neutral workshop provides information on the fundamental principles and general issues surrounding MPAs, including history, basic concepts and definitions, and types and uses, as well as a number of different ways to get involved with MPAs.

If your organization is interested in being a local host for this full-day workshop, please contact Heidi Recksiek at (843) 740-1194. The workshop is offered by the National MPA Center's Training and Technical Institute, which is housed at the NOAA Coastal Services Center.

Negotiating for Coastal Resources

When lines are drawn in the sand, coastal resource professionals need strong negotiation skills. "Negotiating for Coastal Resources" helps coastal managers determine when to negotiate, what to negotiate, and how to negotiate in regard to interagency relationships and coastal and land-use issues.

The first part of the course helps participants understand the role of advocacy, negotiation, facilitation, education, and outreach. The interactive course also gives participants the opportunity to practice their new negotiation skills using coastal management and land-use case studies.

Participants say the techniques offered to help people overcome common barriers to negotiations are particularly helpful.

"Negotiating for Coastal Resources" is a one-and-a-half-day course that is available by request. Local hosts are responsible for workshop logistics and for ensuring that a minimum of 15 (maximum of 30) coastal professionals are registered. Contact Lynne Hinkey at (843) 740-1191 for course details.

GIS Training for Coastal Resource Professionals

Geographic information systems (GIS) continue to be one of those tools that state coastal programs are finding it hard to live without. In fact, the Center's recent state coastal resource management survey found that 92 percent of the respondents use GIS in their offices.

The Center is determined to help state programs use GIS to their fullest advantage. Several GIS-related courses are offered, and the Center works with state programs and the software industry to keep on top of the coastal management community's GIS-related needs and opportunities.

This research has resulted in the Center's newest technology course devoted to ArcGIS 8.3. The three-day course provides students with opportunities to address a variety of coastal issues using ArcGIS 8.3.

Taught at the Center's training lab, the advanced course is always paired with a two-day Introduction to ArcGIS 8.3 for those who first need the more basic training.

Please visit the Center's training Web site (*www.csc.noaa.gov/training/*) to see a course schedule and get additional information. Questions can be directed to James Lewis Free at (843) 740-1185.

Opening a Gateway to Oregon's Coastal Information

What if all the data about a state's coastline—everything from maps to current weather conditions—were in one easy-to-access place? Beach lovers, researchers, and coastal resource managers in Oregon are taking advantage of a Web site that is one of the country's most comprehensive information sources about a state's shoreline.

"The scope of this project is enormous," says Paul Klarin, coastal project coordinator with the Oregon Ocean-Coastal Management Program. "It goes much deeper in data and content" than other similar Web sites.

The Oregon Coastal Atlas is a "portal" to interactive maps, and data and metadata collected by local, state, and federal agencies, and researchers. Users of the Web site can search a wide variety of data, which can be viewed in their original context or manipulated to solve spatial problems using on-line tools. The site provides everything from hydrography data sets to information on the facilities available at beach-access sites.

Dawn Wright, a professor of geosciences at Oregon State University, says the atlas will help managers and researchers address beach erosion, salmon restoration, protection of marine fisheries, and forecasting of ocean and atmospheric conditions. Surfers and beachgoers are using the site to get information on the coastline and coastal issues.

The site provides everything from hydrography data sets to information on the facilities available at beach-access sites.

The Coastal Atlas is Oregon's contribution to the National Spatial Data Infrastructure, the purpose of which is to provide consistent ways to share geographic data among all users.

If You Build It . . .

Klarin had the original vision for the atlas in the late 90s as the state's use of geospatial data took off. The problem, he says, was that data were being collected in a variety of incompatible formats, scales, and projections by state, local, and federal agencies, and university researchers. Once completed, projects often sat on a shelf or were forgotten as staff moved on to new projects or positions.

"The data essentially was in the hands of those project people and wasn't available for distribution," Klarin recalls. "I didn't want to lose that data. I wanted to find a way to keep it and distribute it, and make it useful for everybody."

In 2000, Klarin helped forge a partnership of the coastal program, Oregon State University's Department of Geosciences, and Ecotrust, a nonprofit organization that promotes conservation-based development, to design and build the Coastal Atlas.

A Question of Technology

When Klarin first had the idea for the atlas just six years ago, he says there wasn't adequate technology to fulfill his vision. "This was before Web mapping was anything like it is today," notes Wright.

But the right technology "arrived sooner than we thought," Klarin says.

With seed money from the National Oceanic and Atmospheric Administration's (NOAA) Coastal Services Center, the partners began convening small workgroups where they "combed the field trying to figure out the best way to go about" creating the atlas, including talking to potential system users and examining data, available technology, software options, and storage needs.

Klarin credits the system's design and smooth operation to Tanya Haddad, the project technical coordinator and system administrator, who "made a complex system simple to use."

Brick by Brick

A four-year, $508,000 grant from the National Science Foundation and additional funds from the Federal Geographic Data Committee (FGDC) enabled the partners to build and bring the atlas to life.

The funding enabled the coastal program to hire Haddad full-time to work on designing and building the atlas. One of the most time-consuming elements, Wright notes, was making sure all the metadata were present and accurate. Oregon State University undergraduate students were hired to perform this tedious task.

Wright says the design of the atlas "draws from the reality that resource decision-making applications require much more than simple access to data. Resource managers commonly make decisions that involve modeling risk, assessing cumulative impacts, and weighing proposed alterations to ecosystem functions and values."

Layer upon Layer

When the atlas went live in December 2002, it had 500 to 600 geographic information system (GIS) data coverages. There are plans, Klarin says, for upwards of several thousand.

While the information on the atlas appears seamless to the user, pieces of it actually reside on each partner's server.

Upon entering the atlas, the user finds four main functional areas represented by different tabs across the top of the screen: Maps, Tools, Learn, and Search. Content is accessible through different paths to accommodate the different types of users.

Under Maps and Tools, users can create maps on-line, display the data, and manipulate them. The newly created maps can be saved as Portable Document Format (PDF) files so that they can be kept and printed.

Wright says popular data sets include hydrography, public land-survey system section lines, transportation, county boundaries, territorial-sea lines, orthophotos, elevation, land cover, and bathymetry. All data sets have metadata that meet FGDC standards.

Klarin notes that the mapping feature of the atlas has been helpful to coastal staff members located across the state. With the atlas, when discussing a specific project, staff members can be "looking at the same image with the same data at the same time, instead of everyone looking at a variety of different maps. . . That's very useful."

The Tools of the Trade

The Tools tab includes a wide variety of tools for planners, as well as the "I found a bug" tool, where users can report information about typos, missing images, or other mistakes or problems.

The Learn section is the equivalent of an on-line encyclopedia about the Oregon coast, Wright says. Information is broken down into four different coastal settings—estuaries, sandy shores, rocky shores, and ocean areas—and by topic, including hazards, access, history, and processes.

When users click on the estuaries section, they find information on the state's 22 estuaries, including graphics and fact sheets. By going to the access topic, users can click on the coastal access inventory page, *www.coastalatlas.net/tools/public/coastal_access.asp*, which has a searchable detailed database on public beach access points.

The Search section provides links to searchable GIS data sets, and in the future will include archives. Links throughout the atlas are provided to other relevant Web sites.

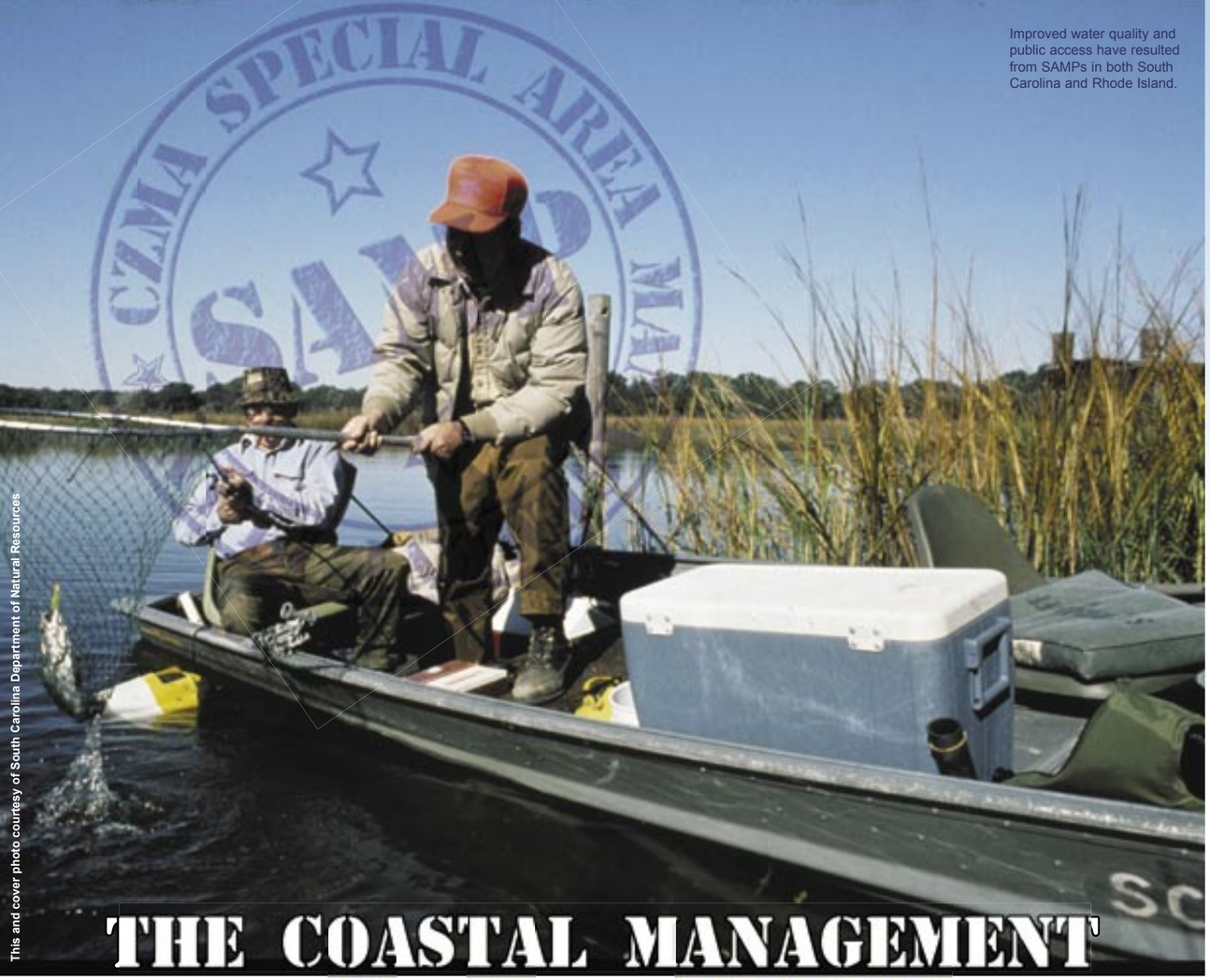
Construction Continues

The atlas, Klarin says, is continually being updated. "It's never static. It's always changing and we're always making improvements. We use feedback from users and our own observations to keep it fresh and keep it moving."

Klarin adds, "We're never looking towards finishing the project and putting it in a box. Technology is not like that and the user community is not like that. We've always kept the scope aggressive and over the top. It keeps us pushing towards the edge." ❖

To access the Oregon Coastal Atlas, point your browser to www.coastalatlas.net. For more information, contact Paul Klarin at (503) 373-0050, ext. 249, or paul.klarin@state.or.us. You may also contact Dawn Wright at (541) 737-1229, or dawn@dusk.geo.orst.edu.

Photo courtesy of Oregon Ocean-Coastal Management Program



Improved water quality and public access have resulted from SAMPs in both South Carolina and Rhode Island.

This and cover photo courtesy of South Carolina Department of Natural Resources

THE COASTAL MANAGEMENT SAMP OF APPROVAL

Each one is unique, the way states approach them varies, the reasons for doing them are wide ranging, and even their names may be different. But Special Area Management Plans (SAMPs) share one thing in common; they are a powerful strategic planning tool for the nation's coastal resource managers.

"SAMPs are a really good tool for handling site-specific, geographic-specific problems," advises Stephen Moore, director of planning for the South Carolina Department of Health and Environmental Control's Ocean and Coastal Resource Management division. Since 1981, South Carolina's coastal program has completed 11 SAMPs and is currently working on 3 more.

Twelve coastal states and territories have used this tool to develop 31 plans that fall under the SAMP definition in the Coastal Zone Management Act, according to Braxton Davis, who studied the topic while a graduate student in the Department of Marine Affairs at the University of Rhode Island.

Coastal managers use SAMPs when the problems in a distinct area go beyond what can be addressed by existing local, state, and federal policies.

SAMPs have been developed to deal with a wide variety of issues, such as watershed and resource management, water quality, coastal habitats, endangered species, economic development, hazards, and preserving cultural resources.

Benefits of their implementation include better resource protection, tailored regulations, more predictability in governmental decision making, and improved relationships between stakeholders and regulators.

Even if a completed plan isn't implemented, there may still be benefits and lessons to be learned by going through the process.

Defining Moment

Special Area Management Plans are loosely defined in a single sentence of a 1980 amendment to the Coastal Zone Management Act (CZMA) as "a comprehensive plan providing for natural resource protection and reasonable coastal-dependent economic growth containing a detailed and comprehensive statement of policies; standards and criteria to guide public and private uses of lands and waters; and mechanisms for timely implementation in specific geographic areas within the coastal zone."

Coastal managers use SAMPs when the problems in a distinct area go beyond what can be addressed by existing local, state, and federal policies.

In 1990, funding incentives for states to make additional, voluntary improvements to their programs—including developing SAMPs—were added to the CZMA through the Coastal Zone Enhancement Program (Section 309).

"The Coastal Zone Management Act has a very clear definition of what a SAMP is," notes Davis, currently a contractor for the National Marine Protected Areas Center, "but there are few additional guidelines as far as development and contents."

He believes this is one of the reasons states have taken such a variety of approaches to the SAMP process.

"I was surprised at how widely varying the documents themselves are," Davis says. The documents he examined range from 12 to 470 pages, and cover areas ranging from 25 to 1,500 square miles. From state to state, everything from boundary definitions to goals and objectives is different. What one state calls a SAMP likely is called something else in another state.

Isn't That Special

Another reason SAMPs are so distinct, managers say, is that each area is, well, special.

"Each SAMP will be different," states Jeff Willis, deputy director of the Rhode Island Coastal Resources Management Council. "It's a different animal depending on where and what the issues are." Rhode Island has completed four SAMPs since 1984, including an interstate plan with Connecticut, and is working on a fifth.

"If you get rid of the 'special' it just becomes a management plan. What makes special area management useful is focusing attention and resources on one small area that really needs the resources rather than spreading it around and producing random acts of environmental kindness," says Mark Imperial, assistant professor in the Department of Political Science at the University of North Carolina at Wilmington.

Start at the Beginning

While SAMPs are an important coastal management tool, it is not a simple task to bring the necessary elements together to develop and implement an effective plan. Differences in state programs, policies, and politics can dictate the feasibility and potential success of undergoing what can be a lengthy and arduous process. There are, however, some fundamental strategies that can be followed.

"A primary element of SAMPs," Davis says, "is that they are long-term. Strategic plans are ongoing policy documents, which are meant to reflect changing needs and conditions, as opposed to action plans that spell out steps 1 through 10 that must be gone through in order to finish a project."

Determining "the right scale for the effort" is important, says Imperial. "There is a tendency to bite off more than you can chew and pick areas that are too big." In addition, the area "has to have a special identity, not just to the folks who live there, but folks outside the area need to recognize it as special, too."

Both Moore and Willis agree that there must be a clearly defined problem that needs to be addressed.

"You have to be focused," Willis advises. "Don't allow yourself to address every issue out there."

Trying to work on too many issues at once, Imperial warns, drains resources. Once the most pressing issues are dealt with, the SAMP can be updated to focus on the next problems on the list.

The focus of SAMPs in Rhode Island and South Carolina includes addressing water quality by managing development, revitalizing waterfronts, locating a storm water utility, protecting cultural and natural resources, and providing research for future management decisions.

Local Support

Other keys to SAMP success are "support from a local governmental body, and participation and support from citizens," Moore says. "Interaction, cooperation, and buy-in with the local communities is very important for SAMP plans to be successful."

In South Carolina, SAMPs are done only at the request of a local government or community group. Requiring some financial assistance from the local government is a lesson South Carolina learned after its first plan was not implemented. "We have found that if the government spends money, they take it more seriously."

While local involvement is essential, it also is necessary to include other state and federal agencies with regulatory interests, nonprofit organizations, and other involved parties. Mark Imperial cautions, however, that the process can become bogged down if the

Continued on Page 6

Continued from Page 5

planning group goes beyond the "right people. It really matters who is involved, and the leadership is critical."

Looking at Options

Coordination is the primary role the South Carolina and Rhode Island coastal programs play in the SAMP process, but they also provide advisory groups with technical expertise and contacts with researchers and experts. "We help them look at all the options available for each particular situation. That's a big part of our process," Moore says.

While research is important, Imperial says that the "lack of science can become a scapegoat for not making a decision."

"The science question is always interesting, but it is less important than many think," Imperial says. "Don't wait four or five years for research before you act to improve the watershed. It is a false hope that science will tell you what to do."

The most important part of the SAMP process is that the plan must be used by the partners when they are making management decisions. "If the plans are not on people's desks and they're not using it, then it doesn't really matter," Imperial says.

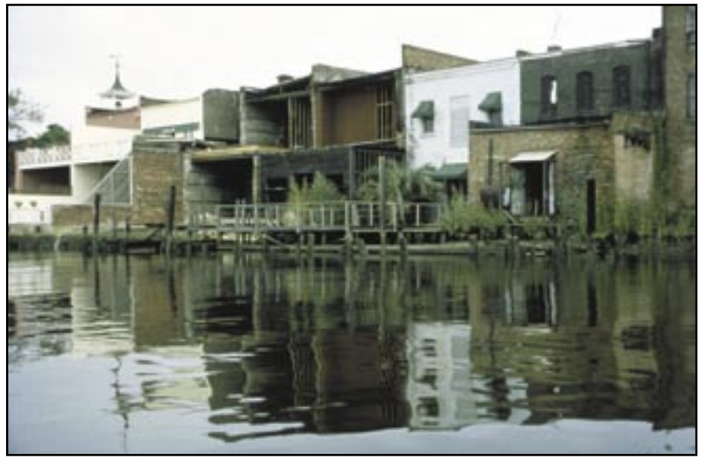
Worth the Effort

The reason Rhode Island and South Carolina continue to develop SAMPs is because they work. SAMPs in those states have resulted in less and smarter development, improved public access, revitalized waterfronts, and improved relationships among all levels of government and the public.

"Land that was developed in the 40s and 50s is still there today and looks remarkably the same as it did then," Willis says of a SAMP area. "You can see the difference in the development."

"SAMPs are a great tool for integrating policies," Davis says. "I think when looking at critical coastal areas, SAMPs provide a great opportunity to clear up some confusion and improve predictability in decision making."

A South Carolina SAMP is helping to protect Drayton Hall, the oldest preserved plantation house in America that is open to the public, and the ecological corridor surrounding it.



This is what the waterfront of Georgetown, South Carolina, looked liked before the development of a SAMP. Today this area is a gathering place and a vibrant part of the community.

Photos courtesy of South Carolina Ocean and Coastal Resource Management program

Moore says the process gets easier with practice, and that they learned valuable lessons even from the plan that was not implemented. "We've gotten more sophisticated as time went on. Each time, we were learning." ❖

To view the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management criteria for developing Special Area Management Plans, point your browser to www.ocrm.nos.noaa.gov/pdf/309fnlquestions_00.pdf. To get more information on South Carolina SAMPs, go to www.scdhec.net/ocrm/. You may also contact Stephen Moore at (843) 744-5838, or moorese@dhec.sc.gov. For more information on Rhode Island's use of SAMPs, log on to www.crmc.state.ri.us. You may also contact Jeff Willis at (401) 783-3370, or j_willis@crmc.state.ri.us. For a summary of Braxton Davis' analysis of Special Area Management Plans, you may contact him at (803) 356-9997 or Braxton.Davis@noaa.gov.

"Old Woman" Blazes Green Trail

When an Ohio National Estuarine Research Reserve needed to expand its buildings to meet current and future growth, managers there chose to incorporate as many new environmentally friendly construction practices and products as possible. The end result is a showcase for sustainable development that's generating excitement about going "green."

"We're showing the public alternative ways to live on the coast," says Gene Wright, manager of the Old Woman Creek Reserve near the City of Huron. "People are loving it and want to know more about it." So much so that the newly remodeled facilities are being used as an "exhibit" to interpret sustainable design to visitors and local decision makers.

Photo courtesy of Old Woman Creek NERR

The expanded Old Woman Creek National Estuarine Research Reserve visitor's center is a showcase of environmentally friendly building techniques.

Increased efficiency, the reduction of toxic chemicals and pollutants, and healthier natural systems are added benefits that help outweigh the extended construction period and a slightly higher price tag.

Wright also points out that building sustainable coastal communities is a goal of both the National Oceanic and Atmospheric Administration (NOAA) and the Ohio Department of Natural Resources, both of which helped fund the $1 million project. "The final payoff is that this is a terrific chance for them to show folks they put their money where their mouth is."

The architectural firm hired did extensive research and came back with 31 products or techniques that could be used in the buildings.

In 1999/2000, the reserve conducted a future facilities needs assessment, which showed that the visitor center should be expanded by about 2,000 feet, long-term dormitory space and parking should be added, and the boathouse needed replacing.

Reserve staff made the decision from the outset to incorporate environmentally sound construction practices and products. The problem was that nobody was quite sure what those were.

The architectural firm hired did extensive research and came back with 31 products or techniques that could be used in the buildings. These included using products made up mostly of recycled materials, such as wallboard, shingles, wallpaper, nails, siding, insulation, carpet, and ceramic tiles. Even the landscaping mulch was created by shredding used wooden pallets.

Sustainable products such as cork and linoleum flooring were used. Fly ash, a by-product of coal-fired electric plants, was added to concrete mixtures, improving workability and strength, and reducing costs. Gutters and downspouts were made with natural copper. Offices were painted with low-odor latex paint. The lumber used was grown using sustainable harvesting practices, and parking lots are permeable.

A geothermal system was installed, which uses the ground temperature to heat and cool the buildings. These systems are safe, environmentally friendly, and are very efficient, reputed to save 30 to 60 percent on monthly energy bills. Compact fluorescent bulbs, and hand dryers, faucets, and lighting fixtures that operate with motion sensors also are adding to the facilities' energy efficiency.

The construction company that won the state contract had no experience with sustainable practices or products, and initially demonstrated some resistance. Reserve staff hosted a number of special education meetings for the construction workers and monitored the project's progress daily.

After 19 months of work, the construction was completed in May 2003.

"Right now, this is the only thing I'm interested in talking about, I'm so proud of it," says Wright, who will be retiring in January 2004 after 25 years. "This is an achievement for all of us. I think it's a great thing." ❖

For information on the materials and techniques used at Old Woman Creek National Estuarine Research Reserve, you can download a brochure at www.dnr.state.oh.us/dnap/publications/brochures/greenbldgbro.pdf. You also may contact Gene Wright at (419) 433-4601.

Reeling In Future Coastal Managers in Georgia

Michelle Duncan didn't learn that she could get a job in the marine science field until she was a senior in high school. She credits a college internship at a Georgia National Marine Sanctuary with getting her where she is today, working as a fishery biologist for the National Marine Fisheries Service.

"Gray's Reef [National Marine Sanctuary] provided a huge amount of opportunities for me," Duncan says. "That internship actually got me where I am today."

A minority intern from Savannah State University's Marine Sciences Department plans and leads weekly programs for the students.

This is the impact that the sanctuary's Student Ocean Council program seems to have on its participants. Cathy Sakas, education coordinator for Gray's Reef, can rattle off a list of students who were either persuaded to go into the marine science field, or whose experience with the program has led to other opportunities.

The Student Ocean Council, the only program of its kind in the National Marine Sanctuary System, is made up of upper-level high school students from local public, private, and home schools who have a desire to learn more about ocean science related careers and subjects.

A minority intern from Savannah State University's Marine Sciences Department plans and leads weekly programs for the students, which range from participating in water quality sampling to taking an introductory scuba lesson. The students in this year's program will build a remotely operated vehicle and enter it in a national competition.

Duncan was the first intern when the program started in 1999.

Photo courtesy of Gray's Reef National Marine Sanctuary

High-school students get hands-on marine science experience.

The council evolved out of a student summit that Dr. Sylvia Earle, explorer-in-residence of the National Geographic Society, held at the sanctuary as part of the National Oceanic and Atmospheric Administration's Sustainable Seas Expeditions.

The summit gave students a taste of potential ocean careers, but Sakas says she really "wanted to get them more involved; to really hook them into marine science."

Every year since then, science teachers have chosen three students from each school to participate on the council. Students are chosen based on their interest and their ability to juggle academics and extracurricular activities. Students also must have their own transportation as the weekly programs may take place anywhere along the state's coastline.

The chair of Savannah State University's Marine Science Department nominates a minority college student for the internship. The sanctuary staff interviews the candidate, looking for an interest in marine science education, an understanding of how research is conducted, and the ability to work with high school students.

Sakas says a minority student is chosen to help promote diversity in the marine science field.

"What makes me feel so good about this program," Sakas says, "is that it is an opportunity for me and the intern to deal directly—almost one-on-one—with students who are already interested in marine science. We foster them and give them the opportunity to go further than they could on their own."

"I didn't have anything like this when I was growing up," notes Duncan. "These kids [on the council] know about careers in marine science long before they go to college, and it might be one of their choices."

She adds, "I wish I'd had something like that when I was in high school." ❖

For more information on the Gray's Reef National Marine Sanctuary Student Ocean Council, point your browser to http://graysreef.noaa.gov/studentcouncil.html. You may also contact Cathy Sakas at (912) 598-2417 or Cathy.Sakas@noaa.gov.

Ideas for the Next Issue

While every state coastal management program has unique challenges, there are similar problems that all coastal managers face. Each bimonthly edition of *Coastal Services* contains articles about important coastal issues and profiles of innovative coastal programs.

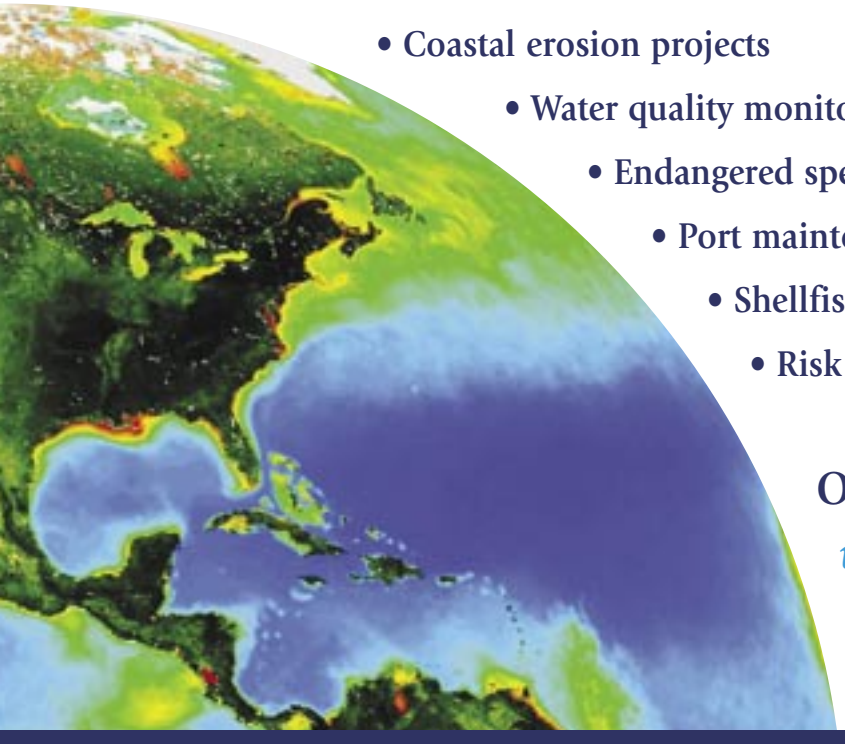
Have we written about your successful project or about a state that has addressed the challenge you are facing? If not, we would like to hear from you.

Articles that our writers are looking at for the January/February 2004 edition of *Coastal Services* include an innovative storm water management project in Connecticut that is attracting national attention and an unusual educational initiative for children in Wisconsin that commemorates the 25th anniversary of that state's coastal management program.

We would also like to hear what you think about *Coastal Services*. Does it come out often enough? Should it include more articles? Do you find the projects that are profiled interesting and informative? Are the articles a valuable resource for keeping up with what other managers are working on, or for generating new ideas?

To share an idea or give us feedback, contact Hanna Goss via e-mail at Hanna.Goss@noaa.gov, or by mail at 2234 South Hobson Avenue, Charleston, SC 29405-2413. You may also contact her by phone at (843) 740-1332, or fax at (843) 740-1313. To read past editions of Coastal Services, point your browser to www.csc.noaa.gov/magazine/.

SEE HOW REMOTE SENSING CAN BENEFIT YOUR PROGRAM.



- Coastal erosion projects
- Water quality monitoring
- Endangered species protection
- Port maintenance
- Shellfish grounds leasing
- Risk assessments

Order this free publication at
www.csc.noaa.gov/clearinghouse/

NOAA Coastal Services Center
2234 South Hobson Avenue
Charleston, SC 29405-2413

PRST STD
POSTAGE & FEES PAID
NOAA COASTAL
SERVICES CENTER
PERMIT NO. G-19